

IN THE CLAIMS

Please amend the claims as follows:

1. (Canceled)

2. (Currently amended) ~~The method of claim 1 which further comprises:~~
A method of tunneling a transaction based protocol through a generic Internet protocol (IP) transport, the method comprising:
providing a generic messaging structure that includes a transport protocol, a message buffer, a source-address field and one or more data fields for transparent routing of a user protocol over the IP transport during a host-to-host communication or telecommunication session;
providing an application program interface to the generic messaging structure, the interface including a mechanism for a user to choose a desired transport and associated protocol for transparently routing the user protocol over the transport in accordance with the chosen transport protocol within the one or more data fields;
creating a base class library including plural defined source and header files, and
third providing a mechanism for deriving a transaction-based protocol-specific class that is compatible with the base class library, the transaction-based protocol-specific class further being derived based in part on the chosen transport protocol.

3. (Currently amended) ~~The method of claim 2, wherein the user protocol~~
~~includes one or more headers followed by an integer number of tag-length-value (TLV) tries~~
~~compliant with the user protocol~~
transaction-based protocol-specific class is derived using an object-oriented inheritance based mechanism.

4. (Currently amended) ~~The method of claim 3, wherein the message buffer~~
~~includes message type and length fields~~
2 including compiling the transaction-based protocol-specific class when a transaction and the transport protocol are determined.

5. (Currently amended) A method of tunneling any related data-, control-, or routing-related protocol through a generic Internet protocol (IP) transport, the method comprising:
creating a base class library including plural defined source and header files
~~compatible with Signaling System 7, telephony centered, and any transaction-based protocol,~~
the base class library further including base class constructors of virtual, copy, and assignment, and generic access methods, and
~~first~~ providing a mechanism for deriving a transaction-based protocol-specific class that is compatible with the base class library, the transaction-based protocol-specific class further being derived based in part on the chosen transport protocol.

6. (Currently amended) The method of claim 5 which further comprises:
~~second~~ providing a generic messaging structure that includes ~~at least~~ a transport protocol, a message buffer, a source-address field and one or more data fields for transparent routing of a user protocol over the IP transport during a host-to-host communication or telecommunication session, and

~~third~~ providing an application program interface to the generic messaging structure, the interface including a mechanism for a user to choose a desired transport and associated protocol for transparently routing the user protocol over the transport in accordance with the chosen transport protocol within the one or more data fields.

7. (Currently amended) The method of claim ~~6~~ 5, wherein the ~~user protocol~~ includes one or more headers followed by an integer number of tag length value (TLV) tries compliant with the user protocol transaction-based protocol-specific class is derived using an object-oriented inheritance based mechanism.

8. (Currently amended) The method of claim ~~7~~, wherein the ~~message buffer~~ includes message type and length fields further including:

compiling the transaction-based protocol-specific class prior to a run-time selection of the chosen transport protocol, and

selecting at run-time the pre-compiled transaction-based protocol-specific class for the chosen transport protocol.

9. (Currently amended) An application programming interface for transparently routing data between ~~sockets~~ hosts in an Internet protocol (IP) transport, the interface comprising:

a message buffer data structure defining a protocol-generic parent class, message, source-address and data fields for a chosen transport protocol;

a message creation mechanism for creating a message and adding it to the message buffer data structure; and

a protocol creation mechanism for deriving a protocol-specific child class based on the chosen transport protocol that renders new protocol-specific sub-fields of said protocol field of said message buffer data structure.

10. (Currently amended) ~~The interface of claim 9 in which the data to be routed represent a defined protocol, wherein said message includes one or more headers followed by an integer number of tag-length-value (TLV) triples compliant with the defined protocol~~ protocol-specific child class is derived using an object-oriented inheritance based mechanism.

11. (Currently amended) ~~The interface of claim 10, wherein said message buffer data structure further includes message type and length information~~ 9 further including:

compiling the transaction-based protocol-specific class prior to a run-time selection of the chosen transport protocol, and

selecting at run-time the pre-compiled transaction-based protocol-specific class for the chosen transport protocol.

12. (Currently amended) ~~The interface of claim 11~~ 10, wherein said message creation and protocol creation mechanisms include computer-readable and computer-executable software instructions.

13. (Original) The interface of claim 12, which includes software source code and headers in C/C++ programming language form.

14. (Canceled)

15. (Currently amended) ~~The computer-readable medium in accordance with claim 14, which computer-readable medium further comprises:~~

A computer-readable medium containing a program for tunneling a transaction based protocol through a generic Internet protocol (IP) transport, the program comprising:

instructions providing a generic messaging structure that includes a transport protocol, a message buffer, a source-address field and one or more data fields for transparent routing of a user protocol over the IP transport during a host-to-host communication;

instructions for providing an application program interface to the generic messaging structure, the interface including a mechanism for a user to choose a desired transport and associated protocol for transparently routing the user protocol over the transport in accordance with the chosen transport protocol within the one or more data fields;

instructions for creating a base class library including plural defined source and header files, and

instructions for providing a mechanism for deriving a transaction-based protocol-specific class that is compatible with the base class library, the transaction-based protocol-specific class further being derived based in part on the chosen transport protocol.

16. (Currently amended) A computer-readable medium containing a program for tunneling a data-related protocol through a generic Internet protocol (IP) transport, the program comprising:

instructions for creating a base class library including plural defined source and header files ~~compatible with Signaling System 7, telephony-centered, and any transaction-based protocol, the base class library further including base class constructors of virtual, copy, and assignment, and generic access methods, and~~

instructions for providing a mechanism for deriving a transaction-based protocol-specific class that is compatible with the base class library, the transaction-based protocol-specific class further being derived based in part on the chosen transport protocol.

17. (Currently amended) The computer-readable medium in accordance with claim 16, which computer-readable medium further comprises:

instructions for providing a generic messaging structure that includes ~~at least~~ a transport protocol, a message buffer, a source-address field and one or more data fields for transparent routing of a user protocol over the IP transport during a host-to-host communication, and

instructions for providing an application program interface to the generic messaging structure, the interface including a mechanism for a user to choose a desired transport and associated protocol for transparently routing the user protocol over the transport in accordance with the chosen transport protocol within the one or more data fields.

18. (New) The method of claim 2 wherein the transport protocol is operated on by a signaling function and wherein the user protocol may be routed over the transport without a switching function.

19. (New) The method of claim 2 including populating a message structure of the transaction-based protocol-specific class with tag-length-value (TLV) trios when the transaction-based protocol-specific class is derived.